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## REMARKS

### Status of the Claims

In the Office Action claims 1-29 were noted as pending in the application. Claims 1-10 and 12-29 stand rejected. Claim 11 is objected to.

### A. Summary of Cited References

Before addressing the Examiner's rejections, a brief summary of the cited references is provided.

#### Lamberton, et. al. (U.S. Patent number 6,754,220) ("Lamberton")

Lamberton relates to dynamically assigning, on a LAN and through a mediator, a plurality of routers to a plurality of hosts to handle packets from the hosts destined for users not connected to the LAN. Abstract. Host are preprogrammed with a default IP address, which is the IP address of the mediator. Col. 4, lines 62-65. When a host starts, it sends an ARP request to all devices, but only the mediator responds. The mediator's response associates the mediator's IP address with the MAC address of a router that the mediator has selected for handling traffic destined outside the LAN. Col. 5, lines 1-9.

#### Bhaskaran (U.S. Patent number 5,963,540) ("Bhaskaran")

Bhaskaran relates to a switch circuit that translates a MAC address from a failed router to the MAC address of a functional router. The translated MAC address is provided in response to an ARP request from a server. Abstract.

#### Short (U.S. Patent number 6,130,892) ("Short")

Short relates to a nomadic router that mimics a home network regardless of where a portable terminal, such as a laptop computer access a communication network, such as the internet. Thus, the portable terminal need not be reconfigured each time the internet is accessed. Abstract. The nomadic router translates the laptop's permanent IP address with the address of the attached communication device that is providing access to the communication network. Col. 6, lines 1-7. This interface translation is done just below the IP layer (layer 3) and above the data link layer (layer 2). Col. 6, lines 23-24. Firewall filters allow packets through that meet transport (port) and network (IP address) criteria. Col. 7, lines 1-3.

### B. Rejection of claims under 35 U.S.C. §102(e)

Claims 1, 4-6, 8-9, 12-15, 18-19, 21-24 and 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Lamberton on page 2 of the office action.

Regarding claim 1, Examiner asserts that the claim is anticipated by Lamberton. Claim 1 is amended to incorporate the limitations of claim 8 and claim 11, which was objected to in the office action. Thus, subject matter deemed allowable by Examiner has been written into claim 1, including subject matter from intervening claim 8. Therefore, claim 1 patentably distinguishes over the reference. Claims 8 and 11 are canceled since claim 1 now includes all the limitation of original claims 8 and 11. Because claims 2-7 and 9-10 depend from claim 1, they too patentably distinguish over the reference. Withdrawal of the rejection is respectfully requested.

With respect to claim 12, which is representative of the substance of claim 21, Examiner asserts that they are anticipated by Lamberton. Claims 12 and 21 have been amended to recite that "... the sending and receiving devices [are] coupled to the sub-network,

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determining whether the sending and receiving devices are permitted to communicate with one another via layer-2 communication based on the layer-3 IP address of the receiving device;

replying from the first function to the sending device an address resolution protocol reply comprising a forwarding agent's media access control address if the sending and receiving devices are not permitted to communicate with one another via layer-2 communication;

sending data packets from the sending device to the forwarding agent based on the forwarding agent's layer-2 MAC address; and

forwarding the data packets from the forwarding agent to the receiving device based on the layer-3 IP address of the receiving device."

Lamberton does not teach all of these recited limitations. In particular, Lamberton does not teach that the sending and receiving devices are coupled to the same sub-network. Indeed, Lamberton discusses that "the invention . . . insure[s] (sic) that IP traffic generated from the hosts for users not connected to the LAN is never interrupted . . ." Col. 3, lines 33-35, emphasis added. Although it may be possible for any of hosts 320 in Lamberton to communicate with one another, they would communicate via layer-2 MAC addresses, as known in the art, the situation for which the improvement of the subject matter recited in the claims is directed.

In addition, a restriction upon this typical mode of communication among member devices of the same sub-network is not taught in Lamberton. Thus, Lamberton does not teach determining whether the sending and receiving devices that are coupled to the same sub-network are permitted to communicate via layer-2. Therefore, it follows that the limitation of replying to the ARP request with the MAC address of the forwarding agent if the sending and receiving devices are not permitted to communicate via layer-2 is not taught by Lamberton.

Moreover, Lamberton does not teach sending data packets from the sending device to the forwarding agent based on the forwarding agent's layer-2 MAC address and then forwarding the data packets from the forwarding agent to the receiving device based on the layer-3 IP address of the receiving device. Although Lamberton may imply this (" . . . further IP packets destined to an outside location [470] are sent directly to router [440] having MAC address . . .", col. 5, lines 6-8) this passage does not teach the recited elements. As previously stated, Lamberton relates to transmitting packets from one network to another, a process that is typically performed according to IP addressing, whereas the claimed subject matter relates to transmitting data within the same LAN, which is traditionally performed according to MAC addressing. Thus, because claims 12 and 21 recite communicating from a sending host to a receiving host, where both hosts are in the same sub-network, and Lamberton discusses communicating between hosts that are not part of the same sub-network, the recited limitations are not disclosed in the reference. Withdrawal of the rejection of claims 12 and 21 is respectfully requested.

Regarding claims 13-20 and 22-29, which depend from claims 12 and 21 respectively, they too patentably distinguish over the reference because the base claims from which they depend are not anticipated by the reference. Withdrawal of the rejection is respectfully requested.

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**C. Rejection of Claims under 35 U.S.C. §103(a).**

Claims 7, 17 and 26 are rejected as being obvious over Lamberton in view of Bhaskaran. Claims 2-3, 10, 16, 20, 25 and 29 are rejected as being obvious over Lamberton in view of Short.

**D. The Claims are not Obvious over the cited references**

Applicant respectfully submits that the subject matter of the claims patentably distinguish over the cited references. Under MPEP § 2142, for an examiner to establish a *prima facie* case of obviousness, "three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure." If any of these three criteria are not met, the Examiner has not met the burden of establishing a *prima facie* case of obviousness, and the rejection should be withdrawn.

Furthermore, each dependent claim includes all of the limitations of the independent claim from which it depends. If an independent claim is non-obvious under 35 U.S.C. § 103, then any claim depending therefrom is non-obvious. MPEP §2143.03, citing In re Fine, 837 F.2d 1071 (Fed. Cir. 1988). Applicant respectfully submits that the burden of establishing a *prima facie* case of obviousness has not been met.

**E. Claims are not obvious over the cited references**

The claims rejected as obvious are dependent claims, which include all of the limitations of the base claim from which they depend. None of the independent claims are rejected as obvious. Thus, under In re Fine as discussed above, since none of the independent claims are rejected as obvious, none of the dependent claims should be rejected as obvious. Withdrawal of the rejection is respectfully requested.

**SUMMARY**

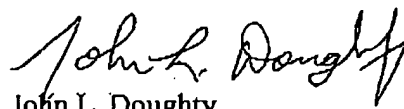
For all the reasons advanced above, Applicant respectfully submits that the application is in condition for allowance and that action is earnestly solicited.

If the Examiner believes that there are any issues that can be resolved by a telephone conference, or that there are any informalities that can be corrected by an Examiner's amendment please contact the undersigned at the mailing address, telephone, facsimile number, or e-mail address indicated below.

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Respectfully submitted,

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